

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: PORTFOLIO

Report Number: P249598

Luminaire Tested: **LSR8B90D010 EC8B90950 8LBDW0MW**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249598
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13957)
Test Lab: INNOVATION CENTER-P1
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LSR8B90D010 EC8B90950 8LBDW0MW
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
90 CRI 5000 CCT WITH MATTE WHITE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8716.0 lumens
Efficiency: N/A
Efficacy: 101.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.26 / 1.18
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

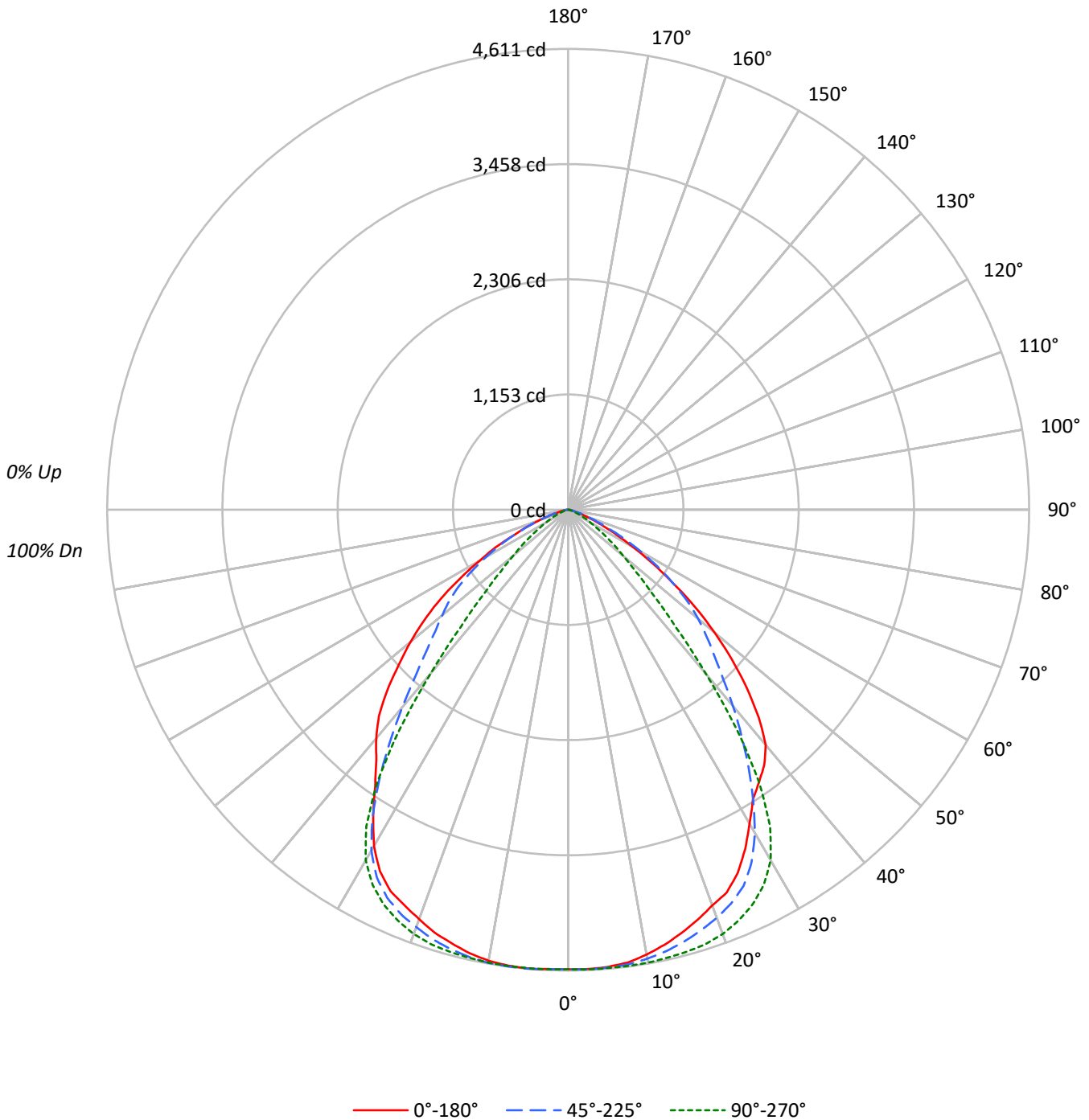
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	90					90			
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79					79			
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70					70			
4	89	80	72	67	87	78	72	66	76	70	66	74	69	65	72	67	64	62					62			
5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57	55					55			
6	78	66	58	53	76	65	58	53	64	57	52	62	56	52	61	55	51	50					50			
7	72	61	53	48	71	60	53	48	59	52	47	57	51	47	56	51	47	45					45			
8	68	56	48	43	66	55	48	43	54	48	43	53	47	43	52	46	42	41					41			
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37					37			
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34					34			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	141807	141807	141807
5°	142120	142503	142655
10°	141521	144073	143456
15°	139955	146180	143422
20°	138274	148237	143052
25°	136478	148406	143197
30°	129117	144232	138346
35°	125261	125351	126654
40°	123708	86248	120235
45°	110231	51777	111740
50°	91657	34459	98762
55°	68745	23757	83739
60°	46588	15831	63177
65°	28099	10266	43407
70°	15580	5563	26705
75°	7065	2359	13821
80°	6126	2628	9643
85°	7005	3467	9624



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	438.9	5.0
10°-20°	1274.6	14.6
20°-30°	1934.6	22.2
30°-40°	2031.9	23.3
40°-50°	1523.4	17.5
50°-60°	977.4	11.2
60°-70°	418.1	4.8
70°-80°	98.8	1.1
80°-90°	18.4	0.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	3648.0	41.9
0°-40°	5679.9	65.2
0°-60°	8180.7	93.9
0°-90°	8716.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8716.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4599	4599	4599	4599	4599	
5°	4591	4599	4604	4611	4609	436
15°	4384	4475	4579	4549	4493	1237
25°	4011	4152	4362	4283	4209	1833
35°	3328	3142	3330	3290	3364	2088
45°	2528	2066	1187	2007	2562	1936
55°	1279	1279	442	1333	1558	1160
65°	385	454	141	585	595	411
75°	59	69	20	118	116	86
85°	20	12	10	20	27	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	4598.7	4598.7	4598.7	4598.7	4598.7	4598.7	4598.7	4598.7	4598.7	4598.7	4598.7
2.5°	4601.2	4606.2	4603.7	4603.7	4601.2	4603.7	4603.7	4608.6	4608.6	4603.7	4601.2
5°	4591.3	4596.3	4596.3	4591.3	4591.3	4603.7	4596.3	4601.2	4601.2	4598.7	4598.7
7.5°	4569.1	4569.1	4579.0	4571.6	4571.6	4579.0	4576.5	4581.5	4586.4	4588.9	4588.9
10°	4519.7	4524.7	4527.2	4527.2	4529.6	4537.0	4542.0	4551.9	4556.8	4561.7	4564.2
12.5°	4458.1	4465.4	4467.9	4465.4	4472.9	4482.7	4495.1	4507.4	4514.8	4524.7	4532.1
15°	4384.0	4384.0	4388.9	4396.3	4401.3	4416.1	4428.4	4443.2	4463.0	4475.3	4487.7
17.5°	4302.5	4307.5	4314.9	4314.9	4324.8	4349.4	4356.8	4379.1	4401.3	4413.6	4438.3
20°	4213.7	4218.6	4226.0	4231.0	4243.3	4263.0	4277.8	4297.6	4322.3	4344.5	4369.2
22.5°	4144.5	4134.7	4139.6	4144.5	4156.9	4174.2	4191.5	4216.1	4240.8	4263.0	4287.7
25°	4011.2	4013.7	4021.1	4026.0	4040.9	4055.7	4075.4	4105.0	4127.3	4152.0	4179.1
27.5°	3831.1	3833.5	3845.9	3845.9	3858.2	3882.9	3895.2	3919.9	3949.6	3974.2	4006.3
30°	3626.2	3631.1	3631.1	3641.0	3648.4	3660.7	3673.1	3697.8	3712.6	3734.8	3779.2
32.5°	3438.6	3443.5	3441.0	3438.6	3431.2	3428.7	3426.2	3431.2	3436.1	3443.5	3460.8
35°	3327.5	3315.1	3305.3	3288.0	3268.3	3243.6	3221.3	3191.7	3164.6	3142.3	3117.7
37.5°	3221.3	3218.9	3204.1	3179.4	3139.9	3095.5	3043.6	2979.4	2915.2	2846.1	2779.5
40°	3073.2	3065.8	3053.5	3018.9	2974.5	2920.2	2851.1	2772.1	2668.4	2562.3	2453.7
42.5°	2821.4	2823.9	2809.1	2781.9	2740.0	2688.1	2616.6	2530.2	2419.1	2293.2	2152.5
45°	2527.7	2527.7	2522.8	2500.5	2470.9	2429.0	2374.7	2303.1	2194.5	2066.1	1915.5
47.5°	2221.6	2224.1	2216.7	2211.8	2199.4	2172.3	2132.8	2078.5	2001.9	1878.5	1727.9
50°	1910.6	1910.6	1922.9	1920.5	1920.5	1910.6	1893.3	1861.2	1794.6	1695.8	1555.2
52.5°	1599.6	1604.5	1611.9	1621.8	1634.1	1653.9	1634.1	1619.3	1577.3	1500.8	1379.9
55°	1278.7	1283.6	1295.9	1313.2	1328.1	1347.8	1352.7	1352.7	1330.5	1278.7	1187.3
57.5°	1004.7	997.3	1007.2	1022.0	1041.7	1061.5	1076.3	1093.5	1091.1	1056.5	982.5
60°	755.4	757.8	765.2	780.1	794.9	812.1	831.9	846.7	854.1	836.8	789.9
62.5°	550.5	550.5	560.3	575.1	582.6	607.3	619.6	627.0	634.4	631.9	602.3
65°	385.1	390.0	395.0	402.4	409.7	424.5	432.0	446.8	451.7	454.2	432.0
67.5°	271.6	264.1	269.1	274.0	281.4	291.3	306.1	306.1	313.5	313.5	298.7
70°	172.8	172.8	175.3	182.6	187.6	190.1	195.0	199.9	207.4	204.9	204.9
72.5°	116.0	113.6	116.0	118.5	121.0	128.3	128.3	130.8	135.8	138.3	128.3
75°	59.3	61.7	66.6	64.2	71.6	66.6	69.1	76.5	74.0	69.1	69.1
77.5°	49.3	49.3	49.3	46.9	51.8	51.8	49.3	54.3	51.8	51.8	49.3
80°	34.5	37.0	34.5	32.1	34.5	32.1	32.1	32.1	32.1	32.1	29.6
82.5°	27.2	22.2	24.7	22.2	24.7	24.7	22.2	19.8	19.8	22.2	19.8
85°	19.8	14.8	17.3	17.3	14.8	14.8	14.8	14.8	14.8	12.3	12.3
87.5°	12.3	7.4	7.4	7.4	9.8	9.8	9.8	7.4	9.8	9.8	5.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	4598.7	4598.7	4598.7	4598.7	4598.7	4598.7	4598.7	4598.7	4598.7	4598.7	4598.7
2.5°	4606.2	4603.7	4608.6	4606.2	4606.2	4603.7	4606.2	4603.7	4608.6	4598.7	4601.2
5°	4606.2	4601.2	4603.7	4606.2	4608.6	4603.7	4603.7	4603.7	4608.6	4603.7	4606.2
7.5°	4596.3	4593.8	4601.2	4606.2	4603.7	4601.2	4606.2	4603.7	4608.6	4606.2	4611.1
10°	4576.5	4579.0	4583.9	4591.3	4593.8	4596.3	4601.2	4601.2	4608.6	4598.7	4603.7
12.5°	4546.9	4556.8	4569.1	4574.0	4583.9	4583.9	4588.9	4591.3	4596.3	4593.8	4601.2
15°	4509.9	4522.2	4537.0	4549.4	4561.7	4569.1	4576.5	4579.0	4586.4	4579.0	4581.5
17.5°	4465.4	4480.2	4502.5	4517.3	4537.0	4544.4	4554.3	4559.2	4566.7	4561.7	4564.2
20°	4403.7	4421.0	4445.7	4467.9	4480.2	4497.5	4509.9	4517.3	4522.2	4517.3	4519.7
22.5°	4317.3	4342.0	4374.1	4391.4	4416.1	4430.9	4433.4	4450.6	4463.0	4450.6	4455.6
25°	4216.1	4240.8	4265.5	4302.5	4324.8	4342.0	4359.3	4361.8	4374.1	4371.6	4369.2
27.5°	4048.3	4080.4	4122.3	4152.0	4181.6	4208.7	4228.5	4233.4	4245.8	4240.8	4243.3
30°	3818.7	3853.3	3892.8	3939.7	3981.6	4008.8	4033.5	4050.7	4063.1	4055.7	4053.2
32.5°	3492.9	3527.4	3569.4	3616.3	3665.7	3705.1	3734.8	3757.0	3771.8	3766.9	3754.5
35°	3120.2	3130.0	3157.2	3194.2	3236.1	3278.1	3305.3	3329.9	3347.2	3352.2	3352.2
37.5°	2737.5	2705.5	2685.7	2685.7	2710.4	2727.6	2752.3	2767.1	2794.3	2804.2	2811.6
40°	2367.2	2293.2	2224.1	2172.3	2137.7	2135.2	2135.2	2142.6	2167.3	2199.4	2229.0
42.5°	2036.5	1918.0	1811.9	1715.6	1646.5	1607.0	1589.7	1592.2	1611.9	1641.5	1690.9
45°	1772.4	1624.3	1491.0	1374.9	1281.1	1219.4	1189.8	1187.3	1202.1	1236.7	1291.0
47.5°	1567.5	1409.5	1258.9	1125.6	1024.4	957.8	923.2	913.4	923.2	955.3	1019.5
50°	1397.2	1234.3	1078.7	940.5	831.9	762.8	730.6	718.3	730.6	757.8	822.0
52.5°	1239.2	1071.3	925.7	792.4	676.4	617.1	582.6	575.1	582.6	614.6	666.5
55°	1056.5	913.4	770.2	636.8	535.7	476.4	449.2	441.9	449.2	478.9	533.2
57.5°	876.3	752.9	627.0	506.0	419.7	367.8	343.1	333.2	350.5	370.2	434.5
60°	708.4	609.7	503.5	397.4	325.9	278.9	259.2	256.7	261.6	286.4	330.7
62.5°	555.4	474.0	390.0	303.6	244.4	224.6	199.9	197.5	202.4	217.2	251.8
65°	399.9	348.1	283.9	222.1	175.3	148.1	138.3	140.7	145.6	155.5	187.6
67.5°	278.9	241.9	197.5	155.5	121.0	108.6	98.8	96.3	98.8	116.0	133.3
70°	187.6	165.4	133.3	118.5	84.0	66.6	69.1	61.7	71.6	71.6	86.4
72.5°	123.4	108.6	88.8	69.1	59.3	46.9	46.9	44.5	49.3	51.8	64.2
75°	64.2	49.3	49.3	34.5	24.7	12.3	22.2	19.8	17.3	19.8	24.7
77.5°	44.5	37.0	34.5	27.2	24.7	19.8	19.8	19.8	19.8	22.2	24.7
80°	27.2	27.2	19.8	17.3	14.8	12.3	14.8	14.8	14.8	14.8	17.3
82.5°	17.3	14.8	14.8	12.3	12.3	9.8	9.8	9.8	9.8	9.8	14.8
85°	14.8	9.8	9.8	7.4	9.8	17.3	7.4	9.8	9.8	9.8	7.4
87.5°	5.0	7.4	7.4	7.4	5.0	2.5	5.0	7.4	7.4	12.3	9.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	4598.7	4598.7	4598.7	4598.7	4598.7	4598.7	4598.7	4598.7	4598.7	4598.7	4598.7
2.5°	4606.2	4608.6	4608.6	4606.2	4606.2	4601.2	4611.1	4603.7	4606.2	4616.0	4608.6
5°	4611.1	4613.5	4613.5	4611.1	4611.1	4611.1	4613.5	4613.5	4611.1	4608.6	4613.5
7.5°	4621.0	4618.5	4618.5	4613.5	4613.5	4608.6	4613.5	4606.2	4611.1	4606.2	4613.5
10°	4608.6	4611.1	4608.6	4606.2	4606.2	4603.7	4603.7	4596.3	4598.7	4591.3	4596.3
12.5°	4601.2	4598.7	4598.7	4593.8	4588.9	4583.9	4581.5	4574.0	4574.0	4556.8	4564.2
15°	4581.5	4583.9	4576.5	4566.7	4561.7	4549.4	4544.4	4534.5	4524.7	4512.4	4514.8
17.5°	4564.2	4556.8	4546.9	4537.0	4517.3	4507.4	4497.5	4482.7	4477.8	4463.0	4458.1
20°	4512.4	4507.4	4495.1	4477.8	4465.4	4443.2	4433.4	4418.6	4406.2	4391.4	4384.0
22.5°	4445.7	4440.7	4425.9	4408.7	4388.9	4379.1	4369.2	4342.0	4329.7	4314.9	4312.4
25°	4361.8	4354.4	4339.6	4319.8	4309.9	4282.8	4272.9	4253.1	4248.2	4233.4	4231.0
27.5°	4233.4	4223.5	4206.3	4181.6	4164.3	4147.0	4137.2	4122.3	4117.4	4102.6	4100.1
30°	4040.9	4028.5	3994.0	3984.1	3954.5	3937.2	3937.2	3917.4	3919.9	3910.1	3910.1
32.5°	3737.3	3717.5	3690.3	3670.6	3650.8	3641.0	3641.0	3633.6	3638.5	3638.5	3643.5
35°	3334.9	3307.8	3292.9	3280.6	3280.6	3290.4	3320.1	3327.5	3342.3	3354.6	3364.5
37.5°	2819.0	2816.5	2833.8	2848.6	2885.6	2927.6	2979.4	3023.9	3065.8	3095.5	3125.1
40°	2261.1	2322.8	2372.2	2441.3	2498.1	2579.5	2673.3	2749.9	2821.4	2873.3	2927.6
42.5°	1764.9	1843.9	1947.6	2048.8	2150.0	2261.1	2384.6	2490.7	2584.5	2656.1	2712.8
45°	1374.9	1483.5	1609.5	1737.8	1868.6	2006.9	2135.2	2243.8	2342.6	2416.6	2473.4
47.5°	1108.3	1226.8	1370.0	1510.7	1658.8	1804.4	1947.6	2041.4	2122.9	2182.1	2234.0
50°	915.8	1041.7	1192.3	1352.7	1500.8	1646.5	1769.9	1861.2	1927.9	1979.7	2011.8
52.5°	765.2	898.5	1059.0	1219.4	1367.5	1500.8	1611.9	1681.0	1735.3	1772.4	1802.0
55°	631.9	760.3	910.9	1061.5	1207.1	1333.0	1424.3	1476.2	1518.1	1540.3	1557.6
57.5°	515.9	634.4	772.6	910.9	1036.8	1140.5	1212.0	1263.9	1283.6	1300.9	1298.4
60°	404.9	515.9	641.8	760.3	868.9	952.8	1004.7	1034.3	1049.1	1056.5	1051.6
62.5°	318.4	419.7	515.9	619.6	698.6	770.2	819.6	819.6	826.9	829.4	836.8
65°	236.9	313.5	397.4	474.0	538.1	585.0	612.2	619.6	629.5	627.0	622.1
67.5°	175.3	232.1	293.7	350.5	395.0	424.5	444.3	461.6	459.2	454.2	451.7
70°	121.0	158.0	212.3	246.9	278.9	308.6	313.5	315.9	318.4	320.9	315.9
72.5°	84.0	111.1	140.7	170.3	190.1	202.4	214.8	217.2	217.2	217.2	214.8
75°	42.0	56.8	84.0	96.3	113.6	118.5	128.3	128.3	135.8	125.9	123.4
77.5°	37.0	44.5	59.3	69.1	76.5	84.0	86.4	93.8	91.3	86.4	88.8
80°	22.2	27.2	37.0	42.0	51.8	54.3	56.8	59.3	56.8	59.3	59.3
82.5°	17.3	19.8	24.7	24.7	32.1	32.1	34.5	34.5	37.0	37.0	37.0
85°	9.8	17.3	14.8	29.6	19.8	19.8	24.7	29.6	24.7	24.7	29.6
87.5°	9.8	9.8	7.4	9.8	9.8	9.8	12.3	14.8	14.8	17.3	14.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P249598

CATALOG NUMBER: LSR8B90D010 EC8B90950 8LBDW0MW

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	4598.7	4598.7	4598.7	4598.7
2.5°	4606.2	4611.1	4603.7	4601.2
5°	4613.5	4613.5	4608.6	4608.6
7.5°	4613.5	4613.5	4606.2	4601.2
10°	4593.8	4593.8	4586.4	4581.5
12.5°	4556.8	4556.8	4554.3	4546.9
15°	4509.9	4509.9	4500.0	4492.6
17.5°	4445.7	4450.6	4438.3	4438.3
20°	4376.6	4374.1	4364.3	4359.3
22.5°	4305.0	4300.1	4297.6	4282.8
25°	4228.5	4223.5	4216.1	4208.7
27.5°	4097.7	4095.2	4087.8	4077.9
30°	3897.7	3895.2	3885.4	3885.4
32.5°	3638.5	3636.0	3626.2	3628.7
35°	3369.4	3379.3	3374.4	3364.5
37.5°	3144.8	3152.2	3157.2	3152.2
40°	2957.2	2979.4	2981.9	2986.9
42.5°	2757.3	2786.9	2796.8	2801.7
45°	2517.8	2545.0	2567.2	2562.3
47.5°	2273.4	2293.2	2312.9	2298.1
50°	2039.0	2051.3	2058.7	2058.7
52.5°	1816.8	1816.8	1814.3	1816.8
55°	1562.5	1562.5	1552.7	1557.6
57.5°	1295.9	1300.9	1293.4	1281.1
60°	1049.1	1036.8	1031.8	1024.4
62.5°	817.1	817.1	799.8	822.0
65°	612.2	604.8	597.3	594.9
67.5°	444.3	441.9	434.5	432.0
70°	313.5	303.6	301.2	296.2
72.5°	209.8	209.8	204.9	204.9
75°	128.3	116.0	113.6	116.0
77.5°	88.8	86.4	86.4	84.0
80°	59.3	56.8	61.7	54.3
82.5°	37.0	39.5	37.0	39.5
85°	24.7	29.6	27.2	27.2
87.5°	14.8	14.8	14.8	14.8
90°	0.0	0.0	0.0	0.0

(END OF REPORT)